What is claimed is:

1. A method for powering an implantable medical device with a first electrochemical cell, the first cell comprising an alkali metal anode coupled to a cathode of a cathode active material activated with an electrolyte, comprising the steps of:

a) discharging a second cell of a similar chemistry as the first cell to deliver a first pulse discharge of electrical current of significantly greater amplitude than that of a pre-pulse current or open circuit voltage immediately prior to the first pulse discharge;

b) waiting a first time interval;

c) discharging the second cell to deliver a second pulse discharge of electrical current immediately prior to the second pulse discharge;

d) deriving a first discharge curve from the first and second pulse discharges;

e) discharging a third cell of a similar chemistry as the first cell to deliver a third pulse discharge of electrical current of significantly greater amplitude than that of a pre-pulse current or open circuit voltage immediately prior to the third pulse discharge;

f) waiting a second time interval greater than the first time interval;

g) discharging the third cell to deliver a fourth pulse discharge of electrical current immediately prior to the fourth pulse discharge;

h) deriving a second discharge curve from the third and fourth pulse discharges;

i) taking a first voltage reading at a first predetermined point on the first discharge curve to determine a first loaded voltage reading;

j) synchronizing a first depth-of-discharge (DOD) of the first loaded voltage reading with the second discharge curve to determine a corresponding second DOD of the second loaded voltage reading of the third cell;

k) subtracting the second loaded voltage reading from the first loaded voltage reading and then dividing by the first loaded voltage reading to determine a percent change; and

l) pulse discharging the first cell powering the implantable medical device at least about once every 90 days and then upon the percent change exceeding about 3% of the first loaded voltage reading, discharging the first cell to deliver periodic current pulse discharges of significantly greater amplitude than that of a pre-pulse current or open circuit voltage immediately prior to the periodic current pulse discharges at intervals less than 90 days.

2. The method of claim 1 wherein the periodic current pulse discharges from the first cell are delivered at time intervals of from about one day to about eight weeks.

3. The method of claim 1 including discharging the first cell to deliver the periodic current pulse discharges to the implantable medical device or to a secondary load.

4. The method of claim 1 including discharging the first, second and third cells to deliver one current pulse as their current pulse discharges.

5. The method of claim 1 including discharging the first, second and third cells to deliver at least two current pulses spaced apart from about 10 to about 30 seconds as their current pulse discharges.

6. The method of claim 1 including discharging the first, second and third cells to deliver about 15 mA/cm^2 to about 50 mA/cm^2 as their current pulse discharges.

7. The method of claim 1 including discharging the first, second and third cells to deliver four current pulses as their current pulse discharges.

8. The method of claim 1 including continuing to pulse discharge the third cell at the second time interval until the derivative of the loaded voltage for the third cell is zero ±4% of DOD at which time the first cell powering the implantable medical device is again pulse discharged at least about once every 90 days.

9. The method of claim 1 including providing the first, second and third cells of a lithium/silver vanadium oxide couple.

10. The method of claim 9 wherein the cathode active material of the first, second and third cells are of silver vanadium oxide in either a freestanding sheet form or pressed powders form.

11. The method of claim 1 wherein the implantable medical device is selected from the group consisting of an implantable pacemaker, a cardiac defibrillators and an automatic implantable cardioverter defibrillators.

12. A method for powering an implantable medical device with a first electrochemical cell, the first cell comprising an alkali metal anode coupled to a cathode of a cathode active material activated with an electrolyte, comprising the steps of:

a) discharging a second cell of a similar chemistry as the first cell to deliver a first pulse discharge of electrical current of significantly greater amplitude than that of a pre-pulse current or open circuit voltage immediately prior to the first pulse discharge;

b) waiting a first time interval;

c) discharging the second cell to deliver a second pulse discharge of electrical current immediately prior to the second pulse discharge;

d) deriving a first discharge curve from the first and second pulse discharges;

e) discharging a third cell of a similar chemistry as the first cell to deliver a third pulse discharge of electrical current of significantly greater amplitude than that of a pre-pulse current or open circuit voltage immediately prior to the third pulse discharge;

f) waiting a second time interval greater than the first time interval;

g) discharging the third cell to deliver a fourth pulse discharge of electrical current immediately prior to the fourth pulse discharge;

h) deriving a second discharge curve from the third and fourth pulse discharges;

i) taking a first voltage reading at a first predetermined point on the first discharge curve to determine a first loaded voltage reading;

j) synchronizing a first depth-of-discharge (DOD) of the first loaded voltage reading with the second discharge curve to determine a corresponding second DOD of the second loaded voltage reading of the third cell;

k) subtracting the second loaded voltage reading from the first loaded voltage reading and then dividing by the first loaded voltage reading to determine a percent change;

l) pulse discharging the first cell powering the implantable medical device at least about once every 90 days and then upon the percent change exceeding about 3% of the first loaded voltage reading, discharging the first cell to deliver periodic current pulse discharges of significantly greater amplitude than that of a pre-pulse current or open circuit voltage immediately prior to the periodic current pulse discharges at intervals less than 90 days; and

m) continuing to pulse discharge the third cell at the second time interval until the derivative of the loaded voltage for the third cell is zero ±4% of DOD at which time the first cell powering the implantable medical device is again pulse discharged at least about once every 90 days.

13. The method of claim 12 including providing the first, second and third cells of a lithium/silver vanadium oxide couple.

14. The method of claim 13 wherein the cathode active materials of the first, second and third cells are of silver vanadium oxide in a pressed powders form.

15. The method of claim 14 wherein the first cell is pulse discharged at intervals of less than 90 days from about 38% DOD to about 58% DOD.

16. The method of claim 13 wherein the cathode active materials of the first, second and third cells are of silver vanadium oxide in a freestanding sheet form.

17. The method of claim 16 wherein the first cell is pulse discharged at intervals of less than 90 days from about 28% DOD to about 42% DOD.